

Claims

- [c1] An apparatus for performing the remote, real-time identification of the contents of containers by means of multiple radio frequency identification systems comprising:
- a container;
 - at least one radio frequency tag that may be attached to objects within the container;
 - at least one radio frequency identification interrogator affixed to the container capable of addressing and acquiring information from the radio frequency tags;
 - a data storage means;
 - a means of stored electrical power;
 - an externally accessible read/write radio frequency tag affixed to the container;
 - an external radio frequency identification interrogator or interrogators compatible with the externally accessible read/write radio frequency tag or tags;
 - and an interface between the container-affixed radio frequency identification interrogator or interrogators, the data storage means, and the externally accessible radio frequency tag or tags so that the identities of the radio frequency tags within the container may be acquired by the container-affixed radio frequency identification in-

terrogator or interrogators, stored within the data storage means, transferred to the externally accessible read/write radio frequency tag or tags and then retrieved by an external radio frequency identification interrogator or interrogators.

[c2] The apparatus of claim 1 wherein the externally accessible RF tag or tags are active tags.

[c3] The apparatus of claim 1 wherein the externally accessible RF tag or tags are semi-passive tags.

[c4] The apparatus of claim 1 wherein the data storage means comprises long-term, low power non-volatile data memory;

The apparatus of claim 1 wherein the closure of a door triggers the acquisition of the identities of the radio frequency tags within the container.

[c5] The apparatus of claim 1 wherein the activation of a motion sensing means triggers the acquisition of the identities of the radio frequency tags within the container.

[c6] The apparatus of claim 1 wherein a timer triggers the acquisition of the identities of the radio frequency tags within the container.

[c7] The apparatus of claim 1 wherein the externally accessible

ble RF tag or tags beacon their information.

- [c8] The apparatus of claim 1 wherein the power storage means consists primarily of a fuel cell.
- [c9] The apparatus of claim 1 wherein the power storage means consists primarily of an electric storage battery.
- [c10] The apparatus of claim 1 wherein the power storage means consists primarily of a capacitor.
- [c11] The apparatus of claim 1 wherein the externally accessible RF tag or tags are polled for their information by an external interrogator or interrogators.
- [c12] The apparatus of claim 1 wherein the internal RF tag or tags are active tags.
- [c13] The apparatus of claim 1 wherein the internal RF tag or tags are passive tags.
- [c14] The apparatus of claim 1 wherein the internal RF tag or tags are semi-passive tags.
- [c15] The apparatus of claim 1 wherein the data storage means is an electronically erasable programmable read only memory.
- [c16] The apparatus of claim 1 wherein the data storage means is contained within the externally accessible RF

tag.